

DEPARTMENT OF  
ELECTRONICS &  
INSTRUMENTATION  
ENGINEERING



SHRI G. S.  
INSTITUTE OF  
TECHNOLOGY &  
SCIENCE,  
INDORE, M.P.

# NEWS LETTER

## JAN - JUNE 2025

NAAC 'A' GRADE  
ACCREDITED



### VISION

The department is committed to provide a holistic education that transforms the students into responsible engineers and facilitates them to build successful careers and excel in the field of Electronics and Instrumentation with social ethical standards.

### MISSION

To prepare emerging Electronics and Instrumentation engineers to possess good communication skills with the ability to work in multi-disciplinary groups, lead teams and understand their professional and ethical responsibilities for serving the needs of the society.



Excellence is a continuous process and not an accident. Those who aim for innovation and technological advancement must cultivate curiosity, perseverance, and a deep sense of responsibility towards society. True engineering is not just about circuits and codes; it is about solving real-world problems, improving lives, and pushing the boundaries of what is possible. A nation's progress depends on the ingenuity of its engineers, and every student who chooses this path must strive to be not just a learner, but a creator, a leader, and a visionary. When your work transforms challenges into opportunities, you don't just build technology—you build the future.

-APJ Abdul Kalam

# EI PULSE - DEPARTMENTAL NEWS & UPDATES

## Showcasing Departmental Strengths – NBA Visit



Dr. Rajesh Khatri, HOD-EI, interacting with the NBA team



NBA team visiting departmental labs

The Department successfully hosted the NBA (National Board of Accreditation) visit on 24<sup>th</sup> May 2025 as part of its ongoing commitment to academic excellence and quality assurance. The visit was conducted by a team of esteemed experts to evaluate the department's curriculum, teaching-learning processes, student performance, faculty contributions, and overall institutional support. The department faculty and staff presented detailed documentation showcasing the department's academic achievements. The peer team commended the department's efforts in maintaining high academic standards, fostering innovation, and creating a student-centric learning environment. The NBA visit served as a valuable opportunity for reflection, growth, and continuous improvement. It reinforced the department's mission to deliver quality education, encourage research, and produce industry-ready graduates. The successful coordination of the event marked a significant milestone in the department's pursuit of excellence.

## Tech, Talent, and Transformation: E&I's Role in AAYAAM 2025

The Department made a significant mark at AAYAAM 2025, the annual techno-cultural fest of SGSITS, Indore, held on February 28<sup>th</sup> and March 1<sup>st</sup>. With the theme "Innovation Canvas: Unleash Your Potential," the department championed creativity and technology, inspiring students to explore beyond traditional limits. A key highlight was the enthusiastic contribution of 2<sup>nd</sup> year students, who organized two dynamic activities—"Be an Electron" and "Guess the Switch." These activities challenged participant's understanding of electronics, critical thinking, and quick decision-making in an engaging format. The events attracted an overwhelming response, fostering an environment of learning through fun. The active participation from students across disciplines reaffirmed the Department's commitment to innovation, hands-on learning, and interdisciplinary collaboration, making the event a resounding success.



Dr. Neetesh Purohit, Director-SGSITS, visiting EI dept. @ AAYAAM



Student participating in the EI departmental event @ AAYAAM 2025

## Matrabhasha Diwas: Honoring Linguistic Heritage



EI students @ Matrabhasha Diwas celebrations

The Department celebrated Matrabhasha Diwas with great enthusiasm, highlighting the importance of linguistic diversity and cultural heritage. 2<sup>nd</sup> year students actively participated through melodious singing and engaging conversations in their native languages, creating a rich multilingual ambiance. The event's highlight was an inspiring address by Dr. P. P. Bansod, who emphasized the vital role of one's mother tongue in shaping identity, preserving culture, and enhancing communication. His message encouraged students to value their native languages while embracing multilingualism as a strength in a globalized world. The celebration beautifully honored language as a bridge to our roots.

## Shaping the Future of Electronics: A Hands-On Internship Experience

The Department successfully conducted a one-month internship on Analog Chip Design, offering students a hands-on learning experience in the field of semiconductor technology and circuit design. This initiative aimed to bridge the gap between academic concepts and industry applications, providing participants with an opportunity to work on real-world design challenges. Under the mentorship of expert faculty, students explored circuit simulations, layout design, and performance analysis of analog circuits.



Dr. Rajesh Khatri, HOD-EI, with the students undergoing internship

## Wisdom from the Past, Inspiration for the Future: Alumni Lecture Series

The Department successfully organized a series of alumni lectures for 2<sup>nd</sup> and 3<sup>rd</sup> year students, featuring distinguished alumni from diverse domains. The department remains committed to fostering such knowledge-sharing initiatives, ensuring students are well-prepared for the evolving technological landscape. These interactive sessions provided students with invaluable industry insights, technical expertise, and career guidance from experts who once walked the same halls.

The series began with an enlightening session by Mr. Sankalp Shrivastava, Product Engineering Architect at Cadence Design Systems, who spoke about the growing significance of VLSI in the modern economy. He highlighted how advancements in semiconductor technology, chip manufacturing, and AI-driven hardware are shaping industries worldwide. His talk provided students with a clear perspective on emerging opportunities in VLSI design and the skill sets required to excel in this domain.



Student interacting with Mr. Sankalp Shrivastava



Mr. Manish Joshi engaged with the students

The second lecture, delivered by Mr. Manish Joshi, Country Manager at Siglent Technologies, highlighted the critical role of test and measurement instruments in engineering and research. He introduced the students to cutting-edge advancements in oscilloscopes. The session helped bridge the gap between theoretical knowledge and practical testing methodologies.

Bringing a management perspective into the technical domain, Prof. Aditya Billore, Professor of Marketing at IIM Indore, delivered an engaging talk on "Positioning Oneself". He guided students on how to build a strong personal brand, differentiate themselves in a competitive job market, and develop a growth mindset. The session was particularly beneficial for students looking to enhance their soft skills, networking abilities, and career positioning strategies.



Prof. Aditya Billore, IIM Indore, explaining the importance of positioning oneself



Dr. Rajesh Khatri, HOD-EI, welcoming Prof. Ankesh Jain, IIT Delhi



Students & faculty during the engaging session

The final lecture in the series was presented by Prof. Ankesh Jain, Associate Professor at IIT Delhi, who delved into the intricacies of High-Speed ADC Design. He discussed the challenges and advancements in high-frequency signal conversion, power efficiency, and precision in ADC architectures. The session provided students with deeper technical insights into mixed-signal electronics and its applications in communication and data acquisition systems.

## **Towards Excellence: Understanding Outcome-Based Education**

The Department conducted an OBE (Outcome-Based Education) Awareness Session to help students understand the importance of outcome-driven learning. Ms. Tarni Joshi led the session, explaining the key concepts of OBE and its impact on academic growth. Prof. Anjana Jain, the college's NBA Coordinator, also shared insights on how OBE supports quality education and accreditation. The session proved to be an eye-opener for students, helping them recognize the value of outcome-oriented learning in shaping their academic and professional journeys.



Ms. Tarni Joshi, Asst. Prof.- EI Dept., briefing the students during the session

## Deep Dive into VLSI Technology: Expert Lecture

Students from the Department visited Acropolis Institute, Indore, to attend an expert lecture delivered by Mr. Pramod B. Sabnis, Senior Director at Qpeak Semiconductor, under the aegis of the VLSI Society of India. The session, titled "VLSI Career: Opportunities, Growth & Future Prospects," offered valuable insights into the evolving landscape of VLSI design, fabrication, and career pathways.



Students of the Department @ Acropolis Institute for the Expert Lecture

## FACULTY ACCOMPLISHMENTS

Dr. Sanchita Dass, Assistant Prof. of the Department, has been honored with the Best Ph.D. Thesis Award for her research work titled "Development of Biomaterials for Enhancing the Thermographic Resolution in Detection of Bone Disease" at Doctoral Conference SHODH 2025.

## PIONEERS IN PROGRESS: STUDENT HIGHLIGHTS

### The Placement Pulse: Student Success Stories

The Department proudly announces successful placements for the academic year, with students securing positions in reputed companies like Reliance Industries, Vedanta Ltd, TKIL Industries, etc. This achievement reflects the department's commitment to academic excellence, industry-relevant training, and student development. We congratulate all placed students and thank our faculty, training cell, and alumni network for their invaluable support. The department continues to strive toward greater milestones in student success and professional readiness.



Harshit Jain



Shreyash Upadhyay



Sneha Rathore



Akshat Tripathi



Aman Dhunde

### GATE Achievers 2025: Rising Stars of Technical Excellence

We are incredibly proud to congratulate our brilliant students on their outstanding performance in GATE 2025 ! Your hard work, perseverance, and commitment have truly paid off & has set a great example for your peers. Wishing you continued success in all your future endeavors!

- Shubham Jain, Aagam Ji Jain, Harshit Bansal, Keshvi Bangre, Rajkumar, and special mentions to Manan Mahendra for securing an exceptional AIR 245 & Aman Sahu for qualifying from 2 streams!
- Aaryaveer Gour, Aditya Shukla, Tanmay Mathur, and Sanyam Parmar — your achievement at 3<sup>rd</sup> year of your engineering journey speaks volumes of your dedication and talent.



Aman Sahu



Tanmay Mathur



Shivam Gupta



Aditya Shukla



Rajkumar

## Inking Ideas: Student Success in Paper Publications



Mayank Dehariya



Ruchi Payasi



Nidhi Sahu

Demonstrating commendable academic initiative and research excellence, MTech. students from the Department have recently achieved significant milestones in scholarly publishing.

- Mayank Dehariya presented his research paper titled “Design of Sigma-Delta Modulator for Medical Implantable Device Using 180nm Technology” at the 2024 2<sup>nd</sup> International Conference on Recent Trends in Microelectronics, Automation, Computing and Communications Systems (ICMACC).
- Ruchi Payasi also showcased her work at the same conference with a paper titled “A 1-kS/s Sampled 8-Bit SAR ADC for Sensing Block in Pacemaker”, reflecting her contribution to advancements in biomedical electronics.
- Nidhi Sahu published her paper titled “Instrumentation Amplifier for Pacemaker Using 180nm CMOS Technology” in the International Journal of Innovative Research in Technology (IJIRT).

## Creative Coders: Students Tackle Challenges at Hackathons

- Sumit Khandegar, Tanmay Mathur, Vaishnavi Rajput, Snigdha Gangele, and Tanshuka Jha, 3<sup>rd</sup> year students and members of Team OpAmpers, proudly represented the college among the top 20 teams nationwide in the prestigious Analog Design Hackathon organized by ChipIn, CDAC, Bengaluru.
- Sumit Khandegar secured a global rank of 807 in TCS CodeVita Season-12.
- Daksh Dhanwani & Prince Kumar, 2<sup>nd</sup> year students, participated in Goldman Sachs India Hackathon showcasing their programming skills.



Team OpAmpers @ Analog Design Hackathon

## Industry Connect: Exploring Innovation at Xero EV

Students from the Department participated in an enriching industrial visit to Xero EV, Pithampur, aimed at enhancing their understanding of real-world engineering practices. The visit offered firsthand insights into the manufacturing and assembly processes of electric vehicles, showcasing the integration of automation, innovation, and sustainability. Industry professionals at Xero EV provided in-depth explanations on EV design principles and current technologies. This visit proved highly informative and aligned well with the department’s objective of promoting industry-relevant, experiential learning for holistic technical education and future-ready graduates.



Students with the industry experts @ Xero EV

## Internship Spotlight: Real-World Learning



Arin Patel



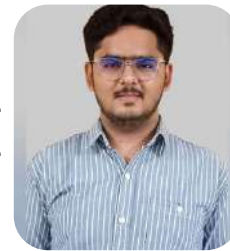
Akshat Chauhan

- Arin Patel & Akshat Chauhan, 2<sup>nd</sup> year students, secured an internship opportunity at Defence Research & Development Organization (DRDO).
- Aman Azad & Omni Kosta, 3<sup>rd</sup> year students, are interning at Eco Mechatronics Automation.
- Daksh Dhanwani, 2<sup>nd</sup> year student, pursuing research internship at DA-IICT in Embedded AI/ML.
- Anurag Raja, 2<sup>nd</sup> year student, started an internship at BHEL, Bhopal.

## Igniting Potential: Skill-Building & Personal Development

We are proud to share that our students have successfully completed certification courses, demonstrating their commitment to academic excellence and self-driven learning.

- Daksh Dhanwani successfully completed the “Machine Learning Specialization” course offered by Coursera, showcasing his skills in artificial intelligence.
- Prince Kumar earned an Elite Rank Certificate from NPTEL for his exceptional performance in the course “Python for Programming in Data Science”, reflecting his strong foundation in the domain.
- Vanisha Pathak, 2<sup>nd</sup> year student, completed the NPTEL course on “Database Management System”.
- Gautam Patel, 2<sup>nd</sup> year student, completed the NPTEL course on “Programming in Java”.
- Anurag Raja & Varun Chaurasia, 2<sup>nd</sup> year students, completed the NPTEL course on “CMOS Digital VLSI Design”.
- Diksha Jain, 2<sup>nd</sup> year student, secured an elite level NPTEL certification on “Foundation of Cloud IoT Edge ML”.
- Dhrupad Gupta, 2<sup>nd</sup> year student, completed a 2-month training course on “Artificial Intelligence” from Placify Technologies.



Daksh Dhanwani



Prince Kumar



Vanisha Pathak



Diksha Jain

## Athletic Triumphs: Student Sports Highlights

- Kashish Mahore, 2<sup>nd</sup> year student, proudly represented the college at the State and Zonal Level Karate Championships and the All India University Boxing Championship held in Bathinda, Punjab. She also took part in the Inter-branch Basketball Competition. Her remarkable contributions were recognized and felicitated at the Annual Sports Meet – Varchasva 2025.
- Abhiraj Singh Solanki, represented college in Badminton at Lakshya 3.0, IIT Indore.
- Prince Kumar represented the department in Kho-Kho and Football during the Inter-Branch Sports Competition organized by the college, successfully advancing to the semi-final stage.
- Sunny Singh and Shivam Sharma represented college in the Football Tournament at Lakshya 3.0 – 2025, hosted by IIT Indore, showcasing commendable skill and sportsmanship.



Kashish Mahore @ All India University Boxing Championship



Sunny Singh

## Achievements: Excellence Beyond the Classroom

- Himanshu Vishwakarma, Aman Azad, Tanmay Mathur & Omni Kosta, 3<sup>rd</sup> year students, secured top position in the poster presentation organised by dept. for their project on Smart Waste Segregator.
- Prince Kumar, 2<sup>nd</sup> year student, showcased his excellence by securing the 1st position in the Standard Writing Competition conducted by the BIS Club. Adding to his list of accomplishments, he was also honored by the Hon'ble SGSITS Director, Dr. Neetesh Purohit, in recognition of his outstanding performance at Annual Sports Meet - Varchasva 2025.
- Daksh Sharma, 2<sup>nd</sup> year student, of SGSITS, participated as a team member of SGSITS IdeaLab in a project exhibition held during Nimar Abhyudaya 2025 at Khargone.



Himanshu, Aman & Tanmay demonstrating their project & poster



Prince Kumar felicitated @ Varchasva 2025

## Student Excellence in Event Management



Dipesh, Gaurav, Sumit & team @ Code Quest 2.0



Prabhat, Prince, Stuti, Tushal & team @ AAYAAM



Unnati Bhawsar @ AAYAAM cultural event



Ayush Gurjar during robo race @ AAYAAM

- Dipesh Prajapat, Gaurav Ray and Sumit Khandegar (3<sup>rd</sup> year) successfully organized Code Quest 2.0, a coding contest open to students from 1st to 3rd year.
- Prabhat Shimle, Prince Kumar, Stuti Bafna, Tushal Chouhan, Nikhil Rathore & team (2<sup>nd</sup> year) actively contributed as part of the departmental organizing committee for AAYAAM 2025, showcasing enthusiasm and teamwork.
- Manas Dubey, Dipesh Prajapat, and Sumit Khandegar (3<sup>rd</sup> year) served as dedicated student coordinators for the Alumni Lecture Series 2025, playing a key role in connecting past and present through insightful sessions.
- Unnati Bhawsar, 2<sup>nd</sup> year student, conducted Youth Day celebrations, along with participating in cultural activities on Republic Day & AAYAAM 2025.
- Daksh Dhanwani (2<sup>nd</sup> year) represented the department as a central-level committee member for AAYAAM 2025.
- Ayush Gurjar, 2<sup>nd</sup> year student, contributed in design & development of robo race held in AAYAAM.